

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-11. (cancelled)

12. A method for making a joint between an initially closed tubular member and a hollow component, comprising:

using a fluid under high pressure acting on walls of the tubular member and component in a joint area to form at least one common indentation on the walls of the tubular member and of the component; and

using the high-pressure fluid to widen the tubular member in the joint area to form a non-circular cross-section.

13. The method according to claim 12, wherein the component is tubular, the method further comprising assembling the component with the tubular member before the formation of the joint to position the component on the tubular member.

14. The method according to claim 12, further comprising:

the component as an initially open tubular section, which surrounds a hollow space over at least 180°; and

turning up the component prior to the formation of the joint elastically at the edges of the opening for positioning on the tubular member; and

placing the component on the tubular member with a springing back of the edges of the opening.

15. The method according to claim 14, further comprising expanding the tubular member and the component together in the joining position and pressing the walls of the tubular member and the component to shape against a bead which is formed in a high internal pressure forming tool that surrounds the tubular member and the component.

16. The method according to claim 14,
narrowing the cross-section of the tubular section of the component;
placing the tubular section of the component in an high internal pressure forming tool at least at the cross-sectional narrowing; and
pressing the tubular member using the high pressure fluid conformingly against the inside of the component.

17. The method according to claim 16, wherein the step of narrowing the cross-section of the tubular section of the component includes narrowing the cross-section of the tubular section of the component mechanically with a punch.

18. The method according to claim 14, further comprising:
expanding the loosely assembled tubular member and the component with the high pressure fluid to form a press fit between the component and tubular member;
using the high pressure fluid to force the walls of the tubular member and of the component against at least one punch arranged in a high internal pressure forming tool, to form an indentation.

19. The method according to claim 16, further comprising using the high pressure fluid to form a nipple from the tubular member, and joining the nipple to the component.

20. The method according to claim 19,

placing the cross-sectional narrowing of the component in a branch of the high internal pressure forming tool, wherein the branch is of the same shape at the place of the cross-sectional narrowing with the component when the component is inserted into the forming tool; and

using the high pressure fluid to expand the tubular member and the component into the branch, undercut surfaces of the cross-sectional narrowing of the component being caught from behind by the nipple that is forming.

21. The method according to claim 20, further comprising placing adhesive between the tubular member and the component before the formation of the indentation, and activating the adhesive ability of the adhesive after the formation of the indentation.

22. The method according to claim 20, further comprising placing solder between the tubular member and the component before the formation of the indentation, and attaching the tubular member and the component by heating the solder after the formation of the indentation.

23. The method according to claim 20, placing a damping material between the tubular member and the component before the formation of the indentation.

24. The method according to claim 12, further comprising expanding the tubular member and the component together in the joining position and pressing the walls of the tubular member and the component to shape against a bead which is formed in a high internal pressure forming tool that surrounds the tubular member and the component.

25. The method according to claim 12,

narrowing the cross-section of the tubular section of the component;

placing the tubular section of the component in an high internal pressure forming tool at least at the cross-sectional narrowing; and

pressing the tubular member using the high pressure fluid conformingly against the inside of the component.

26. The method according to claim 25, wherein the step of narrowing the cross-section of the tubular section of the component includes narrowing the cross-section of the tubular section of the component mechanically with a punch.

27. The method according to claim 13, further comprising:

expanding the loosely assembled tubular member and the component with the high pressure fluid to form a press fit between the component and tubular member;

using the high pressure fluid to force the walls of the tubular member and of the component against at least one punch arranged in a high internal pressure forming tool, to form an indentation.

28. The method according to claim 12, further comprising placing adhesive between the tubular member and the component before the formation of the indentation, and activating the adhesive ability of the adhesive after the formation of the indentation.

29. The method according to claim 12, further comprising placing solder between the tubular member and the component before the formation of the indentation, and attaching the tubular member and the component by heating the solder after the formation of the indentation.

30. The method according to claim 12, placing a damping material between the tubular member and the component before the formation of the indentation.